



# Water Utility Expenditure and Revenue Projections

---



**Tony Ndah**  
Acting Public Works Director

**Will Fuentes**  
Director of Financial Services

October 2017

## 1. Introduction:

The City's policy and State law require that the water utility is managed in a manner similar to a private enterprise. The water finances are kept in separate funds and are not subsidized by other revenue sources, nor do they generate profit. Ideally, water rates are set to an amount covers the cost for wholesale water, as well as supports the total short term and long term direct and indirect cost of the utility operations, including depreciation of infrastructure assets, overhead charges, reserves, and current and future capital improvements. The water utility fund maintains operating reserves to serve as a contingency fund if revenues should be lower and/or expenses should be higher than expected. The City's reserve policy for the water fund is 30% of the water fund annual operating budget.

Water rate increases from wholesale suppliers continues to drive up cost to the City; however, the City's current water rate, which has been in effect since April 2016, has not been changed to keep up with these increased costs. Consequently, an analysis of the estimated water fund expenses and revenues show that the water utility would have insufficient funds starting in fiscal year 2018/2019 to maintain the required 30% reserve target for the City.

## 2. Current Water Meter Charges and Water Rates:

On December 15, 2015, the City adopted new water meter charges and water rates for the water utility. The rates were implemented to two phases, with the first increase becoming effective in January 2016 and the next rate increase becoming effective in April 2016. The current water meter charges and water rates for the City are shown in the tables below:

Table 1: Council Adopted Water Meter Charges (FY 2016/17)

FIXED METER BI-MONTHLY CHARGES		FIRE METER BI-MONTHLY CHARGES	
Meter Size	Charge	Fire Service Line Size	Charge
5/8 inch	\$19.44	2 inch	\$31.10
3/4 inch	\$29.16	3 inch	\$58.32
1 inch	\$48.60	4 inch	\$97.20
1-1/2 inch	\$97.20	6 inch	\$194.40
2 inch	\$155.52		
3 inch	\$291.60		
4 inch	\$486.00		
6 inch and above	\$972.00		

Table 2: Council Adopted Water Rates (FY 2016/17)

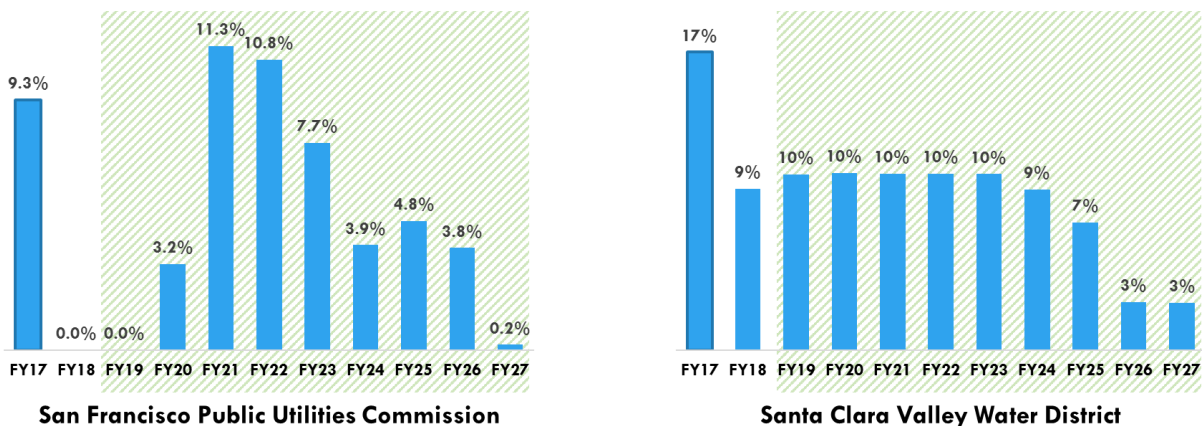
Quantity Charges (Charge per Hundred Cubic Feet)		
Category	Volumetric Charge	Capital Surcharge
<b>Residential:</b>		
0 – 10 HCF	\$5.13	\$1.30
11 – 20 HCF	\$5.13	\$1.30
21 – 30 HCF	\$5.13	\$1.30
> 30 HCF	\$5.13	\$1.30
Commercial, Industrial, Institutional, Construction	\$5.13	\$1.30
Potable Irrigation	\$5.13	\$1.30
Ed Levin Park**	\$4.10	NA
City of Milpitas	\$5.13	\$1.30
Recycled Irrigation	\$2.78	NA
Recycled Industrial, Dual-plumbed, Construction	\$2.78	NA
Recycled City of Milpitas	\$2.78	NA

Per the water rate study completed in December 2015, it was recommended that the City should increase the unit volumetric unit rate for water by 8% by July 2016, 8% by July 2017, and 5% by July 2018. Currently the 2016/17 fiscal year water rate charge of \$5.13 per HCF is still in effect.

### 3. Water Costs:

The majority of the City's cost to provide water is the wholesale purchase cost of the water. The City holds long-term supply contracts for wholesale potable water from the San Francisco Public Utilities Commission (SFPUC) and the Santa Clara Valley Water District (SCVWD). These contracts allow these suppliers to set wholesale prices to recover their cost of service. The wholesale water cost are projected to increase in the coming years as shown on the charts below:

**Chart 1: Ten Year Wholesale Water Rate Future Projections**



#### 4. Operating Costs:

The City owns a complex pipeline distribution network of over 200 miles of pipe, operated as seven distinct seven pressure zones through the use of pump stations and pressure regulating valves to ensure that all areas of the City have a constant supply of pressurized water for fire fighting , public health, and sanitation.

#### 5. Five Year Revenue and Expenditure Analysis

The five-year revenue and expenditure analysis is performed by starting with the actual July 2017 water fund balance and estimating revenues and expenses to project an expected fund balance for the years ahead. The five-year revenue and expenditure analysis takes a conservative approach and assumes the following:

- wholesale water purchases for the City remain constant, with the wholesale water rate increasing each year, based on projected water rate increase from the wholesale water providers.
- City's current volumetric water rate charge of \$5.13 per HCF remains in effect during the course of the 5-year projection.
- The analysis assumes the operating costs for the City would increase by 3% each year, with no new personnel added to the water utility.

The five year estimated revenues and expenditures the water utility is shown in the table below. The analysis of the estimated water fund expenses and revenues show that the water utility would have insufficient funds starting in fiscal year 2018/2019 to maintain the required 30% reserve target for the City. These projections were also presented to the Water Rates Task Force. An adequate reserve is necessary to account for unforeseen emergencies, issue debt when needed, and preserve the City's excellent credit rating.

Table 3. Five Year Projected Water Utility Revenue and Expenditures

	<i>Proposed Fiscal Year 17/18</i>	<i>Proposed Fiscal Year 18/19</i>	<i>Proposed Fiscal Year 19/20</i>	<i>Proposed Fiscal Year 20/21</i>	<i>Proposed Fiscal Year 21/22</i>
Wholesale Costs of Water	\$15.9 million	\$16.5 million	\$17.4 million	\$19.2 million	\$21.6 million
Total City Operations Costs	\$10.5 million	\$9.3 million	\$9.6 million	\$9.8 million	\$10.8 million
Total Costs:	\$26.5 million	\$25.7 million	\$27.0 million	\$29.2 million	\$32.5 million
Total Revenue	\$26.2 million	\$25.2 million	\$25.2 million	\$25.2 million	\$25.1 million
Short revenue	-\$190,000	-\$545,000	-\$1.76million	-\$3.97 million	-\$7.4 million

## 6. Next Steps

Staff recommended next steps are as follows:

- Water Rates Study – Complete a water rates study and recommend the rate structure needed to meet operating requirements, capital improvements, regulatory obligations, and reserve funding levels. The water rates study would evaluate the financial impact of various rate alternatives and provide the following:
  - i. Develop different rate options for consideration by the City
  - ii. Rates will be developed to support the City’s proposed issuance of water bonds
  - iii. The new rates would be effective July 1, 2018

The water rate developed as part of the water rates study would impact the issuance of a new water bond for the water utility. The Bond will be lower than \$25 million noted in the CIP due to using capital surcharge on “pay as you go” basis for projects in the last few years, but the City will not be able to issue a new bond to address major CIP projects without an appropriate rate that allows the City to meet its obligations. The bond market wants to both see that the City is able to cover its operating expenses and have an approved plan for future rate increases (i.e. an approved annual rate plan for 2 to 3 years).

- Public Outreach and Community Engagement – a critical step in this process includes the incorporation of input from the community throughout the development of the new rates and rate structure. Public outreach and community engagement would consist of the following:
  - i. Stakeholder outreach
    - a. Community outreach via water rate workshops
    - b. City Council presentations at Council meetings
  - ii. Develop Outreach materials
  - iii. Prop 218 process and hearing
- Cost Allocation Plan – The City has a Cost Allocation Plan (CAP) in place to identify indirect overhead costs needed to support operations in its Enterprise Funds, such as the water utility fund, and other areas. The current CAP methodology was developed internally and approved by the City Council in 2014. It is updated annually with current information. The Director of Financial Services has reviewed the CAP and believes it to be sound in its distribution of indirect overhead costs and its ability to adhere to federal granting requirements. The plan has also been reviewed by outside consultants and they too believe the CAP and its methodology to be sound. Nevertheless, it is good practice to periodically review the CAP and update its cost drivers and methodology where appropriate. Thus, the Director of Financial Services has contacted several consultants who are subject matter experts in the field to prepare a new CAP. The CAP consultant will thoroughly examine personnel time and other overhead costs required to serve various City functions including the water utility fund. Staff is also exploring the purchase of software that will allow the CAP to be continuously updated using data from the City’s Enterprise Resource Planning (ERP) software. Once

selections of a CAP consultant and software are made, staff will return to Council with a budget appropriation request. Estimated costs for consultant and software are \$50,000. Update of the CAP was an area of concern addressed by the Water Rates Task Force and the Director of Financial Services fully supports a refresh to ensure accuracy, transparency, clarity, and best practice. The results of the revised CAP may impact the indirect overhead costs assigned to the water utility fund; either positively or negatively.